

Abstract Title: **“Into the Eye”**

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To most people in the world the acronym NASA, is synonymous with space. Since 1958 NASA has been the United States’ singular space experts. But, when you look at the name NASA you see there is an “A” that stands for “Aeronautics”. Even in the United States of America it is little known that NASA still conducts a great breadth of aeronautical research.

NASA’s aeronautical research not only encompasses advancing aircraft technology and aviation safety for today and the future, but it also has a branch that deals with Airborne Science. This Airborne Science branch possesses unique airborne flight vehicles (manned and unmanned) whose sole purpose is to take scientists and their experiments anywhere in the world, into nearly any climatic condition, to gather the data they need for their research. This research spans such fields as; global warming, weather analysis, air and water pollution, mineral and archaeology search, earthquake damage and prediction, and yes, hurricanes. The data we obtain will hopefully, one day, allow us to better understand our planet, its natural forces and man’s interaction with them.

One of these NASA air vehicles is a former DC-8 airliner built in 1969. For the past 25 years NASA has evolved this DC-8 into a national scientific research asset. This aircraft is currently maintained and operated by NASA’s Dryden Flight Research Center in California. It is fully reconfigurable to match each individual mission. Annually it conducts 4 or 5, widely diverse, research programs requiring worldwide travel. In 2010 it was configured with ice and snow depth measuring equipment twice for major deployments to the Polar Regions. One deployment was for over 5 weeks to northern Greenland, and one was for 7 weeks to the southern tip of Chile for Antarctica missions. For one 3-week period it was configured with infrared and optical sensors and optical quality windows to observe and capture data of a space vehicle’s re-entry burn from an extended deep space mission. This re-entry occurred over Australia. And then in August and September the plane was loaded with the scientists and their instruments for hurricane research. This project was labeled GRIP. For this mission we deployed and operated out of southern Florida for easy access to the oncoming Atlantic storms of the season.

This presentation will discuss specifically the 2010 GRIP Hurricane Earl missions from a pilot’s perspective. The true nature of the mission was not just to get the aircraft, scientists and their sensors into the storm, but more importantly we needed to get all safely back out again. We flew every mission with the goals of returning home with the data needed for success and with an aircraft capable of flying again the next day.

What was it like to fly into the “eye of the hurricane”?

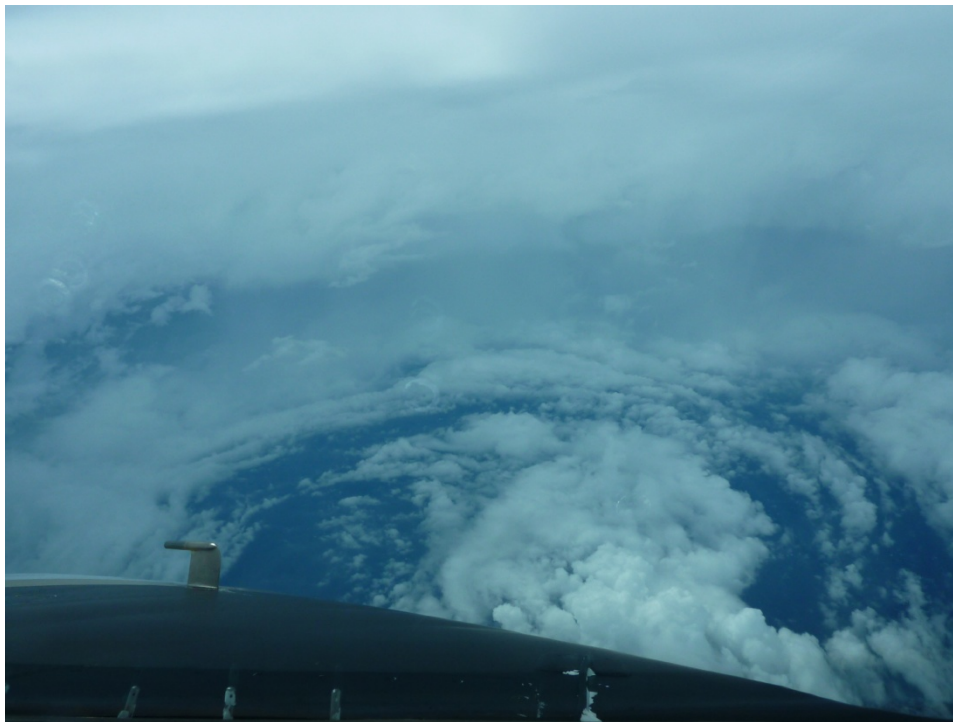
What was the view like from the front seat?

What are the hidden dangers?

Would I do it again?



Dick Ewers sitting in the Captain's seat of the DC-8



The view out the front windscreen into the eye of Hurricane Earl, 30 Aug 2010



Standing in front of the DC-8 on a frozen Thule, Greenland airfield ramp